

# NADAR SARASWATHI COLLEGE OF ENGINEERING AND TECHNOLOGY, THENI.

Course/Branch : B.E/Civil	Year / Semester :IV/VII	Format No.	NAC/TLP-07a.13
Subject Code : CE8703	Subject Name :STRUCTURAL DESIGN AND DRAWING	Rev. No.	02
Unit No : IV	Unit Name : INDUSTRIAL STRUCTURES	Date	30.09.2020

## OBJECTIVE TYPE QUESTION BANK

S. No.	Objective Questions (MCQ /True or False / Fill up with Choices )	BTL
<b>UNIT IV INDUSTRIAL STRUCTURES</b> Structural steel Framing - Steel Roof Trusses – Roofing Elements – Beam columns – Codal provisions - Design and Drawing.		
1.	The greater clear dimension of web of thickness ‘t’ should not exceed a) 180 t b) 200 t c) 240 t <b>d) 270 t</b>	L4
2.	For under water concreting. a) At least 10 percent more cement is required as compared to dry conditions b) The volume of coarse aggregates shall not be less than one and half times and not more than twice that of fine aggregate c) The slump should not be less than 100 mm and not more than 180 mm <b>d) All the above</b>	L4
3.	Creep of concrete is assumed proportional to the stress if the stress does not exceed .....of the characteristic compressive strength a) 15% b) 20% c) 25% <b>d) 33%</b>	L4
4.	The characteristic strength of concrete is the strength of material if its test result is not less than a) 2% b) 4% <b>c) 5%</b> d) 10%	L4
5.	Pick up the correct statement from the following: <b>a) Flange joints are preferably located at points of maximum stress</b> b) The area of splice plates should be 5% in excess of flange elements spliced c) The C.G. of the flange splice should coincide with that of the element spliced d) None of these	L4
6.	The minimum length of the side or diameter of the column base shall not be less than (where d is the minimum diameter of the column). a) (d + 75) mm b) 1.2 (d – 75) mm <b>c) 1.5 (d + 75) mm</b> d) 1.6 (d + 75) mm	L4
7.	In a combined footing if shear stress exceeds 5 kg/cm <sup>2</sup> , the nominal stirrups provided are: a) Legged b) 8 legged c) 10 legged <b>d) 12 legged</b>	L4

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8.	Post tensioning system a) Was widely used in earlier days b) Is not economical and hence not generally used <b>c) Is economical for large spans and is adopted now a days</b> d) None of these	L4
9.	After prestressing process is completed; a loss of stress is due to a) Shrinkage of concrete b) Elastic shortening of concrete c) Creep of concrete <b>d) All the above</b>	L4
10.	The minimum head room over a stair must be a) 200 cm b) 205 cm <b>c) 210 cm</b> d) 230 cm	L4
11.	In case the factor of safety against sliding is less than 1.5, a portion of slab is constructed downwards at the end of the heel slab, which is known as a) A key b) A cut-off wall c) A rib <b>d) All the above</b>	L4
12.	The diameter of the column head support a flat slab, is generally kept <b>a) 0.25 times the span length</b> b) 0.25 times the diameter of the column c) 4.0 cm larger than the diameter of the column d) None of these	L4
13.	The steel generally used in R.C.C. work, is a) Stainless <b>b) Mildsteel</b> c) High carbon steel d) High tension steel	L4
14.	According to I.S.: 456, 1978 the thickness of reinforced concrete footing on piles at its edges, is kept less than a) 5 cm b) 10 cm <b>c) 15 cm</b> d) 20 cm	L4
15.	For normal cases, stiffness of a simply supported beam is satisfied if the ratio of its span to its overall depth does not exceed a) 10 b) 15 <b>c) 20</b> d) 25	L4

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16.	If the length of an intermediate span of a continuous slab is 5m, the length of the end span is kept a) <b>4.5 m</b> b) 4.0 m c) 3.5 m d) 3.0 m	L4
17.	The floor slab of a building is supported on reinforced cement floor beams. The ratio of the end and intermediate spans is kept a) 0.7 b) 0.8 c) <b>0.9</b> d) 0.6	L4
18.	Lapped splices in tensile reinforcement are generally not used for bars of size larger than a) 18 mm diameter b) 24 mm diameter c) <b>36 mm diameter</b> d) 32 mm diameter	L4
19.	In a slab, the pitch of the main reinforcement should not exceed its effective depth a) <b>Three times</b> b) Four times c) Five times d) Two times	L4
20.	In a prestressed member it is advisable to use a) Low strength concrete only b) High strength concrete only c) <b>High strength concrete and high tensile steel</b> d) High strength concrete but low tensile steel	L4
21.	The ratio of the breadth to effective depth of a beam is kept a) 0.25 b) <b>0.50</b> c) 0.70 d) 0.75	L4
22.	Spacing of stirrups in a rectangular beam, is a) Kept constant throughout the length b) Decreased towards the centre of the beam c) Increased at the ends d) <b>Increased at the centre of the beam</b>	L4
23.	If the width of the foundation for two equal columns is restricted, the shape of the footing generally adopted, is a) Square b) <b>Rectangular</b> c) Trapezoidal d) Triangular	L4

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24.	For a continuous floor slab supported on beams, the ratio of end span length and intermediate span length, is a) 0.6 b) 0.7 c) 0.8 <b>d) 0.9</b>	L4
25.	Steel bars are generally connected together to get greater length than the standard length by providing a) Straight bar splice b) Hooked splice c) Dowel splice <b>d) All the above</b>	L4

